

What is claimed is:

- 1     1. An apparatus comprising:  
2         a processor; and  
3         a multipath device driver configured to execute on the processor and to manage a  
4         plurality of physical connections to a peripheral device, the multipath device driver  
5         providing a logical connection interface configured to provide client access to the  
6         peripheral device over at least one of the plurality of physical connections.
- 1     2. The apparatus of claim 1, wherein multipath device driver includes a device driver for  
2         each of the plurality of physical connections, and coupled to the multipath device driver.
- 1     3. The apparatus of claim 1, wherein the multipath device driver is configured to manage  
2         a list including the plurality of physical connections.
- 1     4. The apparatus of claim 3, wherein the multipath device driver is further configured to  
2         manage a second list including information pertaining to active connections of the  
3         plurality of physical connections.
- 1     5. The apparatus of claim 4, wherein the second list includes information pertaining to a  
2         status of each of the plurality of connections.
- 1     6. The apparatus of claim 1, wherein the multipath device driver initiates determining an  
2         alternative connection in response to a failed connection.
- 1     7. The apparatus of claim 6, wherein the multipath device driver determines the  
2         alternative connection by accessing a list of alternative connections.
- 1     8. The apparatus of claim 1, wherein the multipath device driver initiates deleting  
2         connection data from the peripheral device.

1 9. The apparatus of claim 1, wherein the multipath device driver initiates deleting the  
2 connection data by communicating with the peripheral device over another of the  
3 plurality of connections.

1 10. The apparatus of claim 1, wherein the multipath device driver initiates writing  
2 connection data to the peripheral device.

1 11. The apparatus of claim 1, wherein the multipath device driver initiates associating a  
2 first device driver with a second device driver.

1 12. The apparatus of claim 1, wherein the multipath device driver initiates searching a  
2 list for an identifier indicative of the peripheral device to determine a primary connection.

1 13. The apparatus of claim 1, wherein the multipath device driver initiates placing a lock  
2 on a device driver to prevent another device driver from searching a list.

1 14. The apparatus of claim 1, wherein the multipath device driver initiates designating a  
2 connection as a primary connection.

1 15. The apparatus of claim 1, wherein the multipath device driver is created by a primary  
2 device driver.

1 16. The apparatus of claim 15, wherein the primary device driver creates the multipath  
2 device driver in response to detecting a new connection associated with the peripheral  
3 device.

1    17. An apparatus comprising:  
2        a processor; and  
3        a device driver executing on the processor and configured to manage a plurality of  
4    physical connections to a peripheral device, the device driver providing a logical  
5    connection interface configured to create a list including data associated with at least one  
6    active connection of a plurality of connections connecting a computer to the peripheral  
7    device, and to use the list to automatically route communications from the computer to  
8    the peripheral device.

1    18. The apparatus of claim 17, wherein the device driver is configured to use the list to  
2    route the communications to a second connection on the list in the event that a first  
3    connection fails.

1    19. The apparatus of claim 17, wherein the device driver is configured to remove the data  
2    associated with the at least one active connection from the list in response to the at least  
3    one active connection failing.

1    20. The apparatus of claim 17, wherein the device driver is configured to create a second  
2    list including information pertaining to all of the plurality of connections.

1    21. An apparatus comprising:  
2        a processor; and  
3        a multipath device driver executing on the processor and configured to manage a  
4    plurality of physical connections to a peripheral device, the multipath device driver  
5    providing a logical connection interface configured to receive input associated with  
6    removing from memory of the peripheral device information pertaining to an undesired  
7    connection of the plurality of connections connecting a computer to the peripheral device,  
8    and to remove the information from the peripheral device.

1    22. The apparatus of claim 21, wherein the multipath device driver is further configured  
2    to determine an alternative connection in communication with the peripheral device.

1    23. The apparatus of claim 21, wherein the multipath device driver is further configured  
2    to remove the information from the peripheral device using the alternative connection in  
3    communication with the peripheral device.

1     24. A method for managing a plurality of physical connections from a computer to a  
2     peripheral device, the method comprising:  
3             creating a multipath device driver comprising a logical connection to a peripheral  
4     device coupled to a computer over a plurality of physical connections; and  
5             accessing the peripheral device using the multipath device driver.

1     25. The method of claim 24, further comprising adding a new device driver associated  
2     with the multipath device driver in response to detecting a new connection between the  
3     peripheral device and the computer.

1     26. The method of claim 24, wherein accessing the peripheral device using the multipath  
2     device driver further includes accessing a memory.

1     27. The method of claim 24, wherein accessing the peripheral device using the multipath  
2     device driver further includes determining an alternative connection to the peripheral  
3     device in response to detecting a failed connection.

1     28. The apparatus of claim 27, determining an alternative connection to the peripheral  
2     device in response to detecting a failed connection further includes accessing a list of  
3     active connections.

1     29. The method of claim 24, wherein accessing the peripheral device over the multipath  
2     device driver further includes deleting connection data from the peripheral device.

1     30. The method of claim 29, wherein deleting connection data from the peripheral device  
2     further includes communicating with the peripheral device over another of the plurality of  
3     connections.

1 31. The method of claim 24, wherein accessing the peripheral device over the multipath  
2 device driver further includes writing connection data to the peripheral device.

1 32. The method of claim 24, wherein creating the multipath device driver further  
2 includes associating a new device driver with a primary device driver, wherein the  
3 primary device driver is associated with the multipath device driver.

1 33. The method of claim 24, wherein creating the multipath device driver further  
2 includes updating a list including active connections to the peripheral device.

1 34. The method of claim 24, wherein creating the multipath device driver further  
2 includes updating a list including status information pertaining to the plurality of  
3 connections.

1 35. The method of claim 24, wherein creating the multipath device driver further  
2 includes searching a list for an identifier associated with the peripheral device.

1 36. The method of claim 24, wherein creating the multipath device driver further  
2 includes placing a lock on an object to prevent the object from searching a list.

1 37. The method of claim 24, wherein creating the multipath device driver further  
2 includes reading identification data from the peripheral device to confirm an identity of a  
3 connection.

1 38. The method of claim 24, wherein creating the multipath device driver further  
2 includes creating a multipath driver in response to detecting a new connection associated  
3 with a different peripheral device.

1 39. The method of claim 24, wherein creating the multipath device driver further  
2 includes creating the multipath device driver using a primary device driver.

1 40. The apparatus of claim 37, wherein creating the multipath device driver further  
2 includes creating the multipath device driver in response to detecting a new connection  
3 associated the peripheral device.

1 41. The apparatus of claim 37, wherein creating the multipath device driver further  
2 includes using a new device driver associated with a new connection to prompt a primary  
3 device driver to create the multipath device driver, wherein the multipath device is  
4 associated with both the primary and new device drivers.

1     42. A method for managing a plurality of physical connections from a computer to a  
2     peripheral device, the method comprising:  
3         creating a list including data associated with at least one active connection of a  
4     plurality of connections connecting a computer to a peripheral device; and  
5         using the list to automatically route communications from the computer to the  
6     peripheral device.

1     43. The method of claim 42, wherein using the list further includes using the list to route  
2     the communications to a second connection in the event that the at least one active  
3     connection fails.

1     44. The method of claim 42, further comprising removing the data associated with the at  
2     least one active connection in response to the at least one active connection failing.

1     45. The method of claim 42, further comprising creating a list including information  
2     pertaining to all of the plurality of connections.



1 46. A method for managing a plurality of physical connections from a computer to a  
2 peripheral device, the method comprising:  
3 receiving input associated with removing from memory of a peripheral device  
4 information pertaining to an undesired connection of a plurality of connections  
5 connecting a computer to the peripheral device; and  
6 removing the information from the peripheral device.

1 47. The method of claim 46, wherein removing the information further includes  
2 determining an alternative connection in communication with the peripheral device.

1 48. The method of claim 47, wherein removing the information further includes using the  
2 alternative connection in communication with the peripheral device to remove the  
3 information from the peripheral device.

1 49. A program product, comprising:  
2 program code including a device driver configured to manage a plurality of  
3 physical connections to a peripheral device, the device driver providing a logical  
4 connection interface configured to provide client access to the peripheral device over at  
5 least one of the plurality of physical connections; and  
6 a signal bearing medium bearing the program code.

1 50. The program product of claim 49, wherein the signal bearing medium includes at  
2 least one of a recordable medium and a transmission-type medium.